

REMARKS

Upon entry of the foregoing amendment, claims 8-37 will remain pending in the application.

Support for the amendments made to the claims can be found in the specification as originally filed. For example, support for the various members of the Markush groupings set forth in claims 8 and 23 occurs in the originally filed application at page 19, line 21 to page 26, line 21. As such, entry thereof is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 8-37 stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over any one of the following: Yamashita (US 5,549,729), Sampson (US 4,436,547) or Sakagami et al. (US 6,004,906). Reconsideration and withdraw of these rejections is respectfully requested based on the following considerations.

Obviousness Issues

To establish a *prima facie* case of obviousness of a claimed invention under 35 U.S.C. § 103(a), all of the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patenability of that claim against the

prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

Distinctions Over the Cited Art

First, each of claims 8 and 23 have been amended to recite Markush groups for the each of the (1) fatty acids or derivatives thereof, (2) organic acids or derivatives thereof, (3) lipids or derivatives thereof, (4) alcohols or derivatives thereof, (5) amines or derivatives thereof, (6) amino acids or derivatives thereof, (7) proteins or derivatives thereof, (8) nucleic acids or derivatives thereof, (9) natural extracts, (10) fermentation residues, and (11) vitamins, wherein the Markush groupings have been drafted based on disclosure occurring at pages 19-26 of the instant application, with a view of also avoiding any overlap with disclosure in the cited art of Yamashita (US '729), Sampson (US '547) and Sakagami et al. (US '906). The USPTO is invited to review the cited art in combination with the Markush groupings in each of instant claims 8 and 23, to ascertain the lack of overlap between the instant invention and the cited art.

Second, in claims 8 and 23, it is positively recited as follows.

8. A plant-activating agent comprising an effective amount of a substance selected from the group consisting of: ...
*...wherein said agent shows not less than a 5% improved reproduction degree of **unicellular green cells** within 15 days after an effective concentration of the plant activator has been given to a plant.... (emphasis added)*

23. A plant-activating agent comprising an effective amount of a substance selected from the group consisting of: ...
*...wherein said agent shows not less than a 5% improved reproduction degree of **a callus of green cells** within 15 days after an effective concentration of the plant activator has been given to a plant.... (emphasis added)*

It is submitted that none of the instantly cited references teach, disclose or render obvious the provision of a plant-activating agent, or a method utilizing the same, wherein the plant activating agent possesses reproduction degree properties as set forth in claims 8 and 23 in the case of "unicellular green cells" and "a callus of green cells," respectively.

More precisely, neither Yamashita (US '729) nor Sampson (US '547) nor Sakagami et al. (US '906) teach or suggest the specific growth enhancing characteristics that are associated with the present invention, i.e., improved reproduction degree of not less than 5% in the case of "unicellular green cells" (see claims 8-22) or "a callus of green cells" (see claims 23-37), within 15 days after an effective concentration of the plant-activator has been

given to a plant.

Instead, the teachings and disclosures of each of the cited references primarily relate to large-type plants having higher-type plant cells (i.e., multicellular plant cells) and are not at all concerned with determining any cultivating effects on unicellular green cells, including chlorella (see claim 10), or calluses of green cells, including liverwort (see claim 25). Such limitations are however, positively recited in the present claims.

In support of the above contention, one need only look to Sakagami US '906, Example 4 (column 6, lines 27-46), wherein mesophyll cells of asparagus are prepared, and to Example 1 (column 4, line 56 to column 5, line 45) wherein such cells are used in determining plant cell growth activity. Similarly, in Yamashita US '729 and Sampson US '547, all teachings appear to relate to testing possible agents for properties and effects that are different from and not recited in the plant-activating agents and methods of the present invention. For example, in Sampson US '547 its Experiments 1-5 utilize wheat, barley, rice, and wild oats, which are in no way to be deemed as "unicellular green cells" or "a callus of green cells," as is recited in the pending claims; and Yamashita US '729 at columns 42-45 recites in tabular form a plethora of large-type plants having multicellular cell structures, none of which large-type plants fall render obvious the instantly claimed provisions of:

...wherein said agent shows not less than a 5% improved reproduction degree of **unicellular green cells** within 15 days after an effective concentration of the plant activator has been given to a plant.... (see *Claim 8 emphasis added*)

...wherein said agent shows not less than a 5% improved reproduction degree of **a callus of green cells** within 15 days after an effective concentration of the plant activator has been given to a plant.... (see *Claim 23 emphasis added*)

Third, even upon combining the separately cited references' disclosures, there is provided no teaching, disclosure or motivation to those of ordinary skill in the art that would cause or allow them to arrive at the present invention as claimed, including all its recited limitations.

Absent such motivation in the cited art to arrive at the instant invention as claimed, the USPTO's separate rejections under 35 USC § 103(a) over the Yamashita US '729 , Sampson US '547 and Sakagami et al. US '906 cannot be sustained. This conclusion does not change even if the teachings of such references are considered in combination, since even in combination their provided teachings do not lead those skilled in the art to arrive at the instant invention as claimed.

Therefore, based on the above considerations, it is submitted that the cited Yamashita, Sampson and Sakagami et al. references do not support a *prima facie* case of obviousness. This ground of rejection has been obviated and thus, withdrawal of the outstanding 35 U.S.C. § 103 rejection is respectfully requested.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

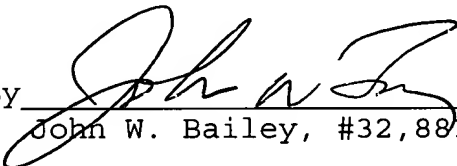
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to contact John Bailey (Reg. No. 32,881) at the offices of Birch, Stewart, Kolasch & Birch, LLP.

Prompt and favorable consideration of this Response is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
John W. Bailey, #32,881

JWB/enm
0425-0835P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000